

**Amendments to the Claims:**

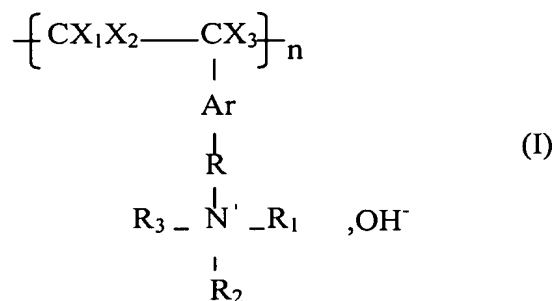
The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-10. (Canceled)

11. (Currently Amended) Alkali fuel cell comprising a solid stack consisting of a first electrode,  
a hydroxide ion conducting solid membrane, ~~conducting hydroxide ions~~ and a second electrode,  
wherein, each electrode ~~comprising~~ comprises an active layer that is in contact with the solid membrane,  
~~wherein~~ the material forming the active layer of each electrode comprises at least ~~an catalytic~~ a catalytic element, an electronic conductive element and an element conducting hydroxide ions,  
the element conducting hydroxide ions of the active layer of each of the electrodes being a polymer having vinylaromatic units comprising a quaternary ammonium function and hydroxide counter-ions  $\text{OH}^-$  being associated with the quaternary ammonium functions of the polymer, and  
the fuel cell not comprising any alkaline liquid.

12. (Previously Presented) Cell according to claim 11, wherein the element conducting hydroxide ions is a polymer having styrenic units comprising a quaternary ammonium function and hydroxide counter-ions  $\text{OH}^-$  are associated with the quaternary ammonium functions of the polymer.

13. (Previously Presented) Cell according to claim 12, wherein the element conducting hydroxide ions is a polymer having the following general formula (I):



in which:

$\text{X}_1$  and  $\text{X}_2$  are both selected from the group consisting of hydrogen, chlorine and fluorine,

$\text{X}_3$  is selected from the group consisting of hydrogen, chlorine, fluorine, an alkyl and a perfluorinated alkyl,

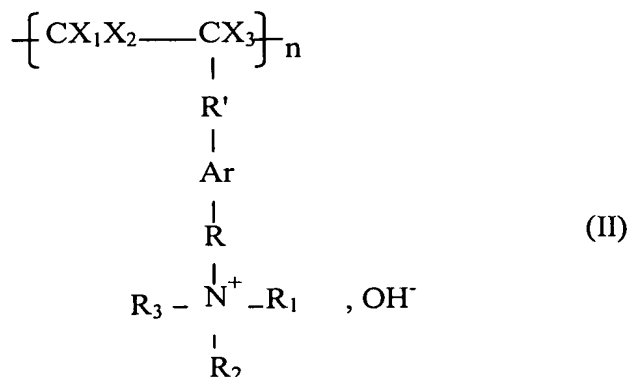
Ar represents a possibly substituted, carbonated aromatic cycle,

R is selected from the group consisting of  $-\text{CH}_2-$  and  $-(\text{CF}_2)_{n1}-\text{CH}_2-$ , with  $n1$  comprised between 1 and 10, the  $-\text{CH}_2-$  alkyl group of R being bonded by a simple covalent bond to the nitrogen of the quaternary ammonium function,

$\text{R}_1$ ,  $\text{R}_2$  and  $\text{R}_3$  are respectively identical or different alkyl, aryl or alkyl-aryl groups,

and n is an integer.

14. (Previously Presented) Cell according to claim 12, wherein the element conducting hydroxide ions is a polymer having the following general formula (II):



in which:

$X_1$  and  $X_2$  are both selected from the group consisting of hydrogen, chlorine and fluorine,

$X_3$  is selected from the group consisting of hydrogen, chlorine, fluorine, an alkyl and a perfluorinated alkyl,

Ar represents a possibly substituted, carbonated aromatic cycle,

R is selected from the group consisting of  $-CH_2-$  or  $-(CF_2)_{n1}-CH_2-$  with  $n1$  comprised between 1 and 10, the  $-CH_2-$  alkyl group being bonded by a simple covalent bond to the nitrogen of the quaternary ammonium,

$R'$  is selected from the group consisting of oxygen, the  $-O-CF_2$  group, and  $-(CF_2)_{n2}-$  with  $n2$  comprised between 1 and 10,

$R_1$ ,  $R_2$  and  $R_3$  are respectively identical or different alkyl, aryl or alkyl-aryl groups,  $n$  is an integer.

15. (Previously Presented) Cell according to claim 11, wherein the electronic conductive element is selected from the group consisting of carbon, nickel, silver, gold and platinum.

16. (Previously Presented) Cell according to claim 11, wherein the catalytic element is selected from the group consisting of platinum and silver.

17. (Previously Presented) Cell according to claim 11, wherein the catalytic element is formed by the electronic conductive element.

18. (Previously Presented) Cell according to claim 11, wherein the electronic conductive element being the support of the catalytic element and of the element conducting hydroxide ions, it is in the form of a fabric, a foam, a powder or a grid.

19. (Previously Presented) Cell according to claim 11, wherein the ionic conductivity of the solid membrane conducting hydroxide ions is greater than or equal to 0.005 S/cm.

20. (Previously Presented) Cell according to claim 11, wherein each electrode comprises a diffusion layer so that the active layer is arranged between the diffusion layer and the solid membrane.